

**Tuesday, October 13**

| <b>Opening Lectures / Ceremony</b>                                                                                                                                    |                                                                                                                                                | <b>15:00–17:00</b> | <b>Main Hall</b> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|------------------|
| Chairs: Naomi Osakabe (President of ICPH2026, Shibaura Institute of Technology, Japan)<br>Kaeko Murota (President of ICoFF2026, Osaka Metropolitan University, Japan) |                                                                                                                                                |                    |                  |
| OL1                                                                                                                                                                   | <b>Beyond the COSMOS: Expanded analyses on the effect of cocoa extract on healthy aging outcomes (tentative)</b>                               |                    |                  |
| 15:00                                                                                                                                                                 | Howard D. Sesso (Harvard Medical School, USA)                                                                                                  |                    |                  |
| OL2                                                                                                                                                                   | <b>Sensory-driven physiological modulation of polyphenols via the gut-brain axis: Implications for sensory nutrition and food augmentation</b> |                    |                  |
| 15:50                                                                                                                                                                 | Naomi Osakabe (Shibaura Institute of Technology, Japan)                                                                                        |                    |                  |
| 16:45                                                                                                                                                                 | <b>Opening Ceremony</b>                                                                                                                        |                    |                  |
| Welcome Reception (17:00-19:00)                                                                                                                                       |                                                                                                                                                |                    |                  |

## Wednesday, October 14

|                          |                            |
|--------------------------|----------------------------|
| <b>Plenary Lecture 1</b> | <b>8:30–9:30 Main Hall</b> |
|--------------------------|----------------------------|

Chair:

PL1      **The redox paradox of oxidizable lipids: 7-Dehydrocholesterol and plasmalogens in health and disease**  
 8:30      Sayuri Miyamoto (University of São Paulo, Brazil)

Coffee Break

|                     |                           |
|---------------------|---------------------------|
| <b>Symposium A1</b> | <b>10:00–11:30 Room A</b> |
|---------------------|---------------------------|

**New Insights into the Bioavailability and Metabolism of Polyphenols**

Chairs:

SYA1-1      **Ileostomates & the gut: a partnership to explore dietary (poly)phenol bioavailability & bioactivity**  
 10:00      Chris Gill (Ulster University, UK)

SYA1-2      **Maternal–offspring transfer and metabolism of dietary quercetin: Expanding the concept of polyphenol bioavailability**  
 10:30      Akari Ishisaka (University of Hyogo, Japan)

SYA1-3      **Postprandial absorption, metabolism and effects of (poly)phenols: The most effective strategy for maximizing health benefits.**  
 10:50      Gary Williamson (Queen's University Belfast, UK)

SYA1-4      **Inhibition of islet amyloid polypeptide aggregation by quercetin-3-O-glucuronide-3'-O-sulfate: the main metabolite in human plasma**  
 11:20      Naoto Yamaguchi (Alps Pharmaceutical Ind. Co., Ltd., Japan)

|                     |                           |
|---------------------|---------------------------|
| <b>Symposium B1</b> | <b>10:00–11:30 Room B</b> |
|---------------------|---------------------------|

**Gastrointestinal Health and Diseases**

Chairs:

SYB1-1      **Balancing cholesterol metabolism in the liver and gut: Perspectives in health and disease**  
 10:00      Andrew J Brown (University of New South Wales, Australia)

SYB1-2      **Increased enterohepatic 12-hydroxylated bile acids promote hepatic lipid accumulation via suppressed very-low-density lipoprotein secretion and enhanced de novo lipogenesis in rats**  
 10:30      Fumika Yokoyama (Hokkaido University, Japan)

SYB1-3      **Gastroprotective effects of okra polysaccharides against gastric ulcer via regulating Nrf2/HO-1-mediated oxidative stress, PERK/ATF4-mediated endoplasmic reticulum stress, and inflammasome NLRP3/GSDMD-mediated cell death pathways**  
 10:45      Cheng-Tso Tsai (China Medical University, Taiwan)

SYB1-4 **Gut microbiota and nutritional regulation of glycoprotein 2 in the pancreas–intestinal axis**  
 11:00 Yosuke Kurashima (Chiba University, Japan)

### Symposium C1

10:00–11:30

Room C

#### Immune Modulation: Potentials of Food Factors in Treatment of Allergy and Inflammation

Chairs:

SYC1-1 **Structural diversity of dietary fibers and their immunomodulatory effects on allergic diseases**

10:00

Masako Toda (Tohoku University, Japan)

SYC1-2 **Glutamine and leucine as pharmaconutrients in sepsis: From muscle protection to hepatic metabolic reprogramming**

10:30

Yu-Chen Hou (Taipei Medical University, Taiwan)

SYC1-3 **Avenanthramide C from Oats exerts anti-inflammatory effects possibly via modulation of aryl hydrocarbon receptor signaling**

11:00

Hiroyuki Sasaki (Calbee, Inc., Japan)

SYC1-4 **Lactiplantibacillus plantarum–fermented fucoidan ameliorates atopic dermatitis and neuroinflammation through modulation of the gut–skin–brain axis in DNCB-induced mice**

11:10

Jumin Park (Pusan National University, Republic of Korea)

SYC1-5 **A novel small molecule as an attenuator of neuroinflammation**

11:20

Diogo Moura-Louro (Universidade NOVA de Lisboa, Portugal)

### Symposium D1

10:00–11:30

Room D

#### Functional Polyphenol Metabolite

Sponsored by Maruzen Pharmaceuticals Co., Ltd.

Chairs:

SYD1-1 **Bioavailability and functional significance of HMPA and its conjugates**

10:00

Toshiro Matsui (Kyushu University, Japan)

SYD1-2 **Decoding molecular targets of functional polyphenol metabolites: mechanisms underlying proteostasis and healthy aging**

10:30

Ho Jeong Kwon (Yonsei University, Republic of Korea)

SYD1-3 **Differential regulatory mechanisms for the cytoprotective effects of quercetin and its in vivo metabolites**

11:00

Yoshimasa Nakamura (Okayama University, Japan)

SYD1-4 **3-(4-Hydroxy-3-methoxyphenyl) propionic acid prevents renal fibrosis and inflammation in CKD mice induced by adenine**

11:20

Mikoto Oda (Hiroshima University, Japan)

| Symposium E1                                                                    | 10:00–11:30 | Room E |
|---------------------------------------------------------------------------------|-------------|--------|
| <b>Bioprospecting and creation of nanoparticles as functional units in food</b> |             |        |

Chairs:

- SYE1-1 **Food nano-assemblies: Multiple functions beyond nutrients delivery**  
10:00 Lijing Ke (University of Leeds, UK)
- SYE1-2 **Functional evaluation of nanovesicles derived from edible plants**  
10:30 Masao Yamasaki (University of Miyazaki, Japan)
- SYE1-3 **Polyphenol-carrying tea nanoparticles: Characterisation and interactions with intestinal epithelial cells**  
11:00 Hanna Ryszczuk (University of Leeds, Leeds, UK)
- SYE1-4 **Red paprika-derived extracellular particles enhance capsanthin absorption via SR-B1- and NPC1L1-associated pathways**  
11:15 Yumi Yamasaki (University of Miyazaki, Japan)

| General Session 1 | 10:00–11:30 | Room F |
|-------------------|-------------|--------|
|-------------------|-------------|--------|

Chairs:

- GSF1-1 **Retinol induces antioxidant responses in the human cultured monocytes probably via transcription factor Nrf2**  
10:00 Rintaro Yamanishi (Kanagawa University of Human Services, Japan)
- GSF1-2 **Fresh Gac fruit (*Momordica cochinchinensis*) peel extract as a promising strategy in attenuating  $\beta$ -amyloid-induced neurodegeneration in HT-22 cells**  
10:10 Chin-Kun Wang (Chung Shan Medical University, Taiwan)
- GSF1-3 **Blueberry co-consumption reduces postprandial stress markers during a high-fat, high-sugar meal in healthy males: a double-blind, randomised crossover study**  
10:20 Rafika Eviana (Monash University, Australia)
- GSF1-4 **Strain-specific Tannase activity drives microbial biotransformation of mango-derived gallotannins into bioactive metabolites**  
10:30 Susanne M. Talcott (Texas A&M University, USA)
- GSF1-5 **'Fueling the Brain in Motion': The effects of blueberry polyphenols on cerebrovascular and cognitive responses to exercise in low- and high-fit young adults**  
10:40 Catarina Rendeiro (University of Birmingham, UK)
- GSF1-6 **First evidence of cardiometabolic benefits of Bravo de Esmolfe apple consumption in hypercholesterolemic adults**  
11:50 Ana Teresa Serra (Instituto de Biologia Experimental e Tecnológica, Portugal)
- GSF1-7 **Bioactivity-guided isolation of cardamom constituents targeting skeletal muscle glucose uptake via GLUT4 translocation**  
11:00 Liyuan Fang (Kobe University, Japan)

GSF1-8 **Flavonoid-Rich Foods in Early Postpartum Care: A randomised trial investigating Cognition, Mood, and Blood Pressure in the Immediate Postpartum**  
11:10 Daniel Lampton (University of Reading, United Kingdom)

GSF1-9 **Effect of the lunch staple (Oat Rice vs. White Rice) on glycemic response in habitual and occasional breakfast skippers**  
11:20 Akiko Furutani (Aikoku Gakuen Junior College, Japan)

#### Student Award Session G1

10:00–11:20 Room G

Chairs:

SAG1-1 **Potent surface antimicrobial activity of hydrolyzable tannins from Aleppo oak galls**  
10:00 Antonia Kaz (Rutgers University, USA)

SAG1-2 **The gut microbiota-dependent anthocyanin metabolite catechol-3-O-sulfate promotes mitochondrial biogenesis in HepG2 cells**  
10:05 Marianthi Firoglani Moschi (Quadram Institute Bioscience, UK)

SAG1-3 **Impact of California grape polyphenols on cardiometabolic markers and arterial stiffness in adults with overweight or obesity**  
10:10 Shannon H. Trinh (University of California, USA)

SAG1-4 **Functional analysis of diosgenin biosynthetic enzyme *Dioscorea japonica* CYP90 (DjCYP90G6, DjCYP90B71)**  
10:15 Mai Konemura (University of Shizuoka, Japan)

SAG1-5 **Visualization of stress levels from a single strand of hair using imaging mass spectrometry**  
10:20 Kotone Yoneda (Fukushima University, Japan)

SAG1-6 **Associations of meal timing and sleep timing with premenstrual syndrome and dysmenorrhea in Japanese women: A cross-sectional study**  
10:25 Aleef Daniel (Hiroshima University, Japan)

SAG1-7 **Effect of Leginsulin soybean fraction exposure on equol producing enzyme gene expression and equol production in equol producing species of bacteria**  
10:30 Athena Lateesya Gary (University of Shizuoka, Japan)

SAG1-8 **Analysis of black Japanese beef cattle fed calcium fatty acids rich in linoleic acid using LC-MS and IMS**  
10:35 Kota Ueno (Fukushima University, Japan)

SAG1-9 **Anti-obesity effects of *Peucedanum japonicum* Thunb root extract through the induction of hepatic Cyp2b10 gene expression in mice**  
10:40 Jessica Famelia Nugraha (Hiroshima University, Japan)

SAG1-10 **Comprehensive localization analysis of pumpkin components cultivated in volcanic ash soil**  
10:45 Rui Tian (Fukushima University, Japan)

- SAG1-11 **Effects of a viscous vegetable mixture on hypercholesterolemia in mice fed a high-fat, high-cholesterol diet**  
10:50  
Lu-Chi Fu (Taipei medical university, Taiwan)
- SAG1-12 **Simple Zn(II) fortification alters the functional properties of green tea under habitual intake conditions**  
15500  
Tsukasa Orita (Kagoshima University, Japan)
- SAG1-13 **Effects of pullulanase and transglucosidase modification on the properties of whole Tartary buckwheat noodles**  
11:00  
Ching Chung (National Ilan University, Taiwan)
- SAG1-14 **Synergistic effects of Ecklonia cava extract and lactobacillus casei on atopic dermatitis and Gut–Skin–Brain axis dysfunction in DNCB-induced mice**  
11:05  
Jing Yan (Pusan National University, Korea)
- SAG1-15 **The impact of coffee on cardiometabolic health: An acute randomized controlled trial testing bioequivalence**  
11:10  
TiJesu Akeredolu (University of Reading, UK)
- SAG1-16 **Effects of Kurozu on suppressing inflammation in a model of intestinal inflammation**  
11:15  
Sakutaro Kawai (Osaka Metropolitan University, Japan)

## Lunch Session

| Symposium A2                                                                             |                                                                                                                                                                                           | 13:00–14:30 | Room A |
|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------|
| <b>Advancing Human Health through Polyphenols: Clinical and Epidemiological Evidence</b> |                                                                                                                                                                                           |             |        |
| Chairs:                                                                                  |                                                                                                                                                                                           |             |        |
| SYA2-1<br>13:00                                                                          | <b>From dietary intake to metabotypes: evolving tools to characterize polyphenol exposure for epidemiology and precision nutrition</b><br>Claudine Manach (INRA Clermont-Ferrand, France) |             |        |
| SYA2-2<br>13:30                                                                          | <b>Dietary polyphenol intake in Japan and its implications for cardiovascular and frailty prevention</b><br>Yoshimi Kishimoto (Setsunan University, Japan)                                |             |        |
| SYA2-3<br>13:50                                                                          | <b>Associations between (poly)phenol intake and dementia risk: findings from the EPIC-Spain Dementia cohort</b><br>Raul Zamora-Ros (Catalan Institute of Oncology, Spain)                 |             |        |
| SYA2-4<br>14:00                                                                          | <b>Alcohol, polyphenols, and breast cancer risk: Evidence from PREDIMED trial data</b><br>Ramon Estruch (University of Barcelona, Spain)                                                  |             |        |

- SYA2-5 **Effect of cocoa extract supplementation on cardiovascular outcomes according to frailty: A post-hoc analysis of the COSMOS trial**  
14:10 Sidong Li (Brigham and Women's Hospital and Harvard Medical School, USA)
- SYA2-6 **Flavonoid intake and risk of all-cause mortality and recurrence among cancer survivors: findings from the UK Biobank cohort**  
14:20 Elissa Price (Queen's University Belfast, UK)

| Symposium B2                                                         | 13:00–14:30 | Room B |
|----------------------------------------------------------------------|-------------|--------|
| Biomarkers, Analytical Methods and Omics Technologies on Polyphenols |             |        |

Chairs:

- SYB2-1 **Genetic polymorphisms drive differential metabolic responses to EGCG in outbred mice**  
13:00 Dragan Milenkovic (NC State University, USA)
- SYB2-2 **Metabolic profiling for deciphering bioactivity-related chemical combinations in green tea**  
13:30 Yoshinori Fujimura (Kyushu University Japan)
- SYB2-3 **Phenolic metabolites for precision nutrition: integrating biomarkers, analytical methods, and multi-omics approaches**  
13:50 Pedro Mena Parreño (University of Parma, Italy)
- SYB2-4 **Microbial enzymes to produce flavonoid metabolites: Tools for metabolic and biological studies**  
14:20 Kateřina Valentová (Institute of Microbiology of the Czech Academy of Sciences, Czechia)

| Symposium C2           | 13:00–14:30 | Room C |
|------------------------|-------------|--------|
| Muscle and Bone Health |             |        |

Chairs:

- SYC2-1 **Translational potential of anti-muscle atrophy peptides: from spaceflight cell experiments to dietary intervention clinical trials**  
13:00 Takeshi Nikawa (Tokushima University Graduate School, Japan)
- SYC2-2 **Phytochemicals in the regulation of bone and lipid metabolism and their potential for preventing locomotive and metabolic syndromes**  
13:30 Mariko Uehara (Tokyo University of Agriculture, Japan)
- SYC2-3 **Precise muscle health from mechanism to human trial – oligo-fucoidan**  
14:00 Sue-Joan Chang (National Cheng Kung University, Taiwan)

| Symposium D2                                   | 13:00–14:30 | Room D |
|------------------------------------------------|-------------|--------|
| <b>Taste, Olfaction and Sensory Properties</b> |             |        |

Chairs:

- SYD2-1    **Imagining flavour and texture: neural representations of multisensory food imagery**  
 13:00    Mei Peng (University of Otago, New Zealand)
- SYD2-2    **How flavor perception emerges from temporal integration of taste and smell**  
 13:30    Tatsu Kobayakawa (National Institute of Advanced Industrial Science and Technology, Japan)
- SYD2-3    **Hydroxy- $\alpha$ -sanshool activates a trigeminal-brainstem somatosensory pathway to evoke numbing sensation**  
 14:00    Ou FU (Jiangnan University, China)

| Symposium E2                  | 13:00–14:30 | Room E |
|-------------------------------|-------------|--------|
| <b>Cancer Chemoprevention</b> |             |        |

Chairs:

- SYE2-1    **Cancer chemopreventive effects of ginseng and its ingredients**  
 13:00    Young-Joon Surh (Seoul National University, Republic of Korea)
- SYE2-2    **Walnuts, urolithins and colon health**  
 13:30    Masako Nakanishi (University of Connecticut Health, USA)
- SYE2-3    **Tocotrienol analogs as potential anticancer compounds: Mechanistic insights**  
 13:55    Ayami Sato (Toyo University, Japan)
- SYE2-4    **Basic research on colorectal cancer prevention and interception using dietary factors**  
 14:20    Shingo Miyamoto (Kyoto Prefectural University of Medicine, Japan)

| YIA Session F2 | 13:00–14:30 | Room F |
|----------------|-------------|--------|
|----------------|-------------|--------|

Chairs:

- YSF2-1    **Development and validation of a vegetable Knowledge, Attitudes, Practices (KAP) questionnaire among adolescents in the Republic of the Marshall Islands**  
 13:00    Wu Pei-Yu (China Medical University, Taiwan)
- YSF2-2    **Mass spectrometry imaging of volatile flavor compounds using Girard's reagent T derivatization**  
 13:10    Hitomi Shikano (Fukushima University, Japan)
- YSF2-3    **The acute and chronic effects of Lion's Mane mushroom supplementation on cognitive function, stress and mood in young adults: A double-blind, parallel groups, pilot study**  
 13:20    Sarah Docherty (Northumbria University, UK)

|                 |                                                                                                                                                                                            |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| YSF2-4<br>13:30 | <b>Chronic effects of Lion's Mane and a Lion's Mane and Reishi blend on prioritised mood and wellbeing measures in young women</b><br>Ellen F. Smith (Northumbria University, UK)          |
| YSF2-5<br>13:40 | <b>R1-barrigenol from <i>Camellia sinensis</i> activates oxytocin receptor</b><br>Ryotaro Hayashi (NIPPN Corporation, Japan)                                                               |
| YSF2-6<br>13:50 | <b>Anti-inflammatory mechanisms of apofucoanthinoids and their inhibitory effects on diet-induced obesity model mice</b><br>Naoki Takatani (Hokkaido University, Japan)                    |
| YSF2-7<br>14:00 | <b>Impact of <i>Rhizopus oligosporus</i>-fermented rice bran dietary supplementation in a streptozotocin-induced sarcopenia model</b><br>Afifah Zahra Agista (Tohoku University, Japan)    |
| YSF2-8<br>14:10 | <b>Identification of cyclo-ornithine as a macrophage-modulating compound in the Japanese dampwood termite (<i>Hodotermopsis sjostedti</i>)</b><br>Tomoko T. Asai (Kyoto University, Japan) |
| YSF2-9<br>14:20 | <b>Sex-dependent effects of a Cricket-based diet on inflammation and muscle signalling in protein-malnourished rats</b><br>See Meng Lim (Universiti Kebangsaan Malaysia, Malaysia)         |

**YIA Session G2****13:00–14:30 Room G**

Chairs:

|                 |                                                                                                                                                                                                                                                                 |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| YSG2-1<br>13:00 | <b>Indigestive complexes formed by heating adzuki bean polyphenols with proteins</b><br>Yutaka Aoyama (Nihon University, Japan)                                                                                                                                 |
| YSG2-2<br>13:10 | <b>Identification of dietary (poly) phenols to inhibit gut microbial 4-hydroxybenzoate decarboxylase as a strategy to reduce phenol production</b><br>Nour el Houda Mouloud (University of Shizuoka, Japan)                                                     |
| YSG2-3<br>13:20 | <b>Sex-specific gut microbiome and cognitive effects of (-)-epicatechin are linked to cell- and sex-dependent hippocampal transcriptional alterations identified by single-nucleus RNA sequencing</b><br>Emilio Balbuena (North Carolina State University, USA) |
| YSG2-4<br>13:30 | <b>Inter-individual variability in the colonic metabolism of flavan-3-ols: how the dehydroxylation capacity defines urinary gut metabolotypes</b><br>Nicole Tosi (University of Parma, Italy)                                                                   |
| YSG2-5<br>13:40 | <b>Mineralization effects on the chemical-sensory profile of olive leaf infusions</b><br>Liz Muller (Instituto de Biologia Experimental e Tecnológica, Portugal)                                                                                                |
| YSG2-6<br>13:50 | <b>Anthocyanins as regulators of BDNF homeostasis: clinical and mechanistic studies</b><br>Eleonora Cremonini (University of California, USA)                                                                                                                   |

- YSG2-7      **Decoding the smoky flavor of smoked lapsang souchong tea**  
14:00      Zhibin Liu (Fuzhou University, China)
- YSG2-8      **Oral administration of 2'-fucosyllactose promotes intestinal remodeling and enhances nutrient absorption in mice**  
14:10      Sho Nishikawa (Teikyo University of Science, Japan)
- YSG2-9      **Metabolic profiling for identifying green tea compounds that enhance GLP-1 secretion**  
14:20      Takuma Kobayashi (University of Shizuoka, Japan)

Coffee Break

| Keynote Lecture |                                                                                                                                                                                                      | 15:00–16:30 | Main Hall |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------|
| Chairs:         |                                                                                                                                                                                                      |             |           |
| KL1<br>15:10    | <b>Natural dietary compounds for colorectal cancer chemoprevention: Molecular targets, gut microbiota, and translational perspectives</b><br>Min-Hsiung Pan (National Taiwan University, Taiwan)     |             |           |
| KL2<br>15:55    | <b>Biological age as a compass for healthy longevity: Epigenetic clocks, rejuvenating food factors, and the diet–microbiome axis</b><br>Yuji Naito (Kyoto Prefectural University of Medicine, Japan) |             |           |

Poster Session 1 (16:45-18:15)

## Thursday, October 15

## Plenary Lecture 2

8:30–9:30 Main Hall

Chair:  
 PL2 **TBA**  
 8:30 Hiroaki Oda (Nagoya Bunri University, Japan)

Coffee Break

## Symposium A3

10:00–11:30 Room A

**The Polyphenol-Microbiota Axis: Recent Advances in Metabolism, Bioavailability, and Therapeutic Potential**

Sponsored by Amway Japan G.K.

Chairs:

SYA3-1 **Microbial determinants of the therapeutic response to ellagitannin polyphenols for steatotic liver disease**  
 10:00 André Marette (Universite Laval, Canada)

SYA3-2 **How important is the gut microbiota for the bioactivity of dietary (poly)phenols?**  
 10:30 Ana Rodriguez-Mateos (King's College London, UK)

SYA3-3 **Predicting who benefits: A microbiome-based score for personalized polyphenol nutrition**  
 11:00 Oran Kwon (Ewha Womans University, Republic of Korea)

## Symposium B3

10:00–11:30 Room B

**Functional Food Design for Personalized Health**

Sponsored by KAGOME CO., LTD.

Chairs:

SYB3-1 **Anthocyanins – current evidence on health benefits**  
 10:00 Aedin Cassidy (Queen's University Belfast, UK)

SYB3-2 **Designing self-care diet using a dietary nutrients analysis system (NANASTM) that proposes nutrients tailored to individual health conditions**  
 10:30 Mari Maeda-Yamamoto (National Agriculture and Food Research Organization, Japan)

SYB3-3 **Acute effects of purple grape juice on hemodynamics and cognition in young healthy adults**  
 11:00 Crystal Haskell-Ramsay (Northumbria University, UK)

SYB3-4 **Apple consumption is associated with obesity- and lipid-related parameters and gut microbiota profiles across enterotypes: 12-week single-blind trial in Japanese adults**  
 11:15 Toshihiko Shoji (National Agriculture and Food Research Organization, Japan)

|                     |                    |               |
|---------------------|--------------------|---------------|
| <b>Symposium C3</b> | <b>10:00–11:30</b> | <b>Room C</b> |
|---------------------|--------------------|---------------|

|                                         |
|-----------------------------------------|
| <b>Antioxidant and Redox Regulation</b> |
|-----------------------------------------|

Chairs:

- |                 |                                                                                                                                                                                       |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SYC3-1<br>10:00 | <b>Lipid droplet quality control: Ferroptosis suppressor protein 1 protects stored non-polar lipids from oxidative damage</b><br>Mike Lange (University of California, Berkeley, USA) |
| SYC3-2<br>10:30 | <b>Oxidative transformation confers a gain of function in curcumin</b><br>Fumie Nakashima (Nagoya University, Japan)                                                                  |
| SYC3-3<br>11:00 | <b>Synthesis of novel aza-flavonoids and evaluation of their antioxidant activity in membrane and erythrocyte models</b><br>Michał Żebrowski (Faculty of Chemistry, Warsaw, Poland)   |
| SYC3-4<br>11:10 | <b>Hydrolysable tannin suppresses lipid droplet accumulation and induces ferroptosis – associated cell death in colon cancer cells</b><br>Lee Seonguk (Kyushu University, Japan)      |
| SYC3-5<br>11:20 | <b>Structure-dependent redox properties of flavonoids regulate the expression of bioactivity</b><br>Taiki Fushimi (Tokushima University Graduate School, Japan)                       |

|                     |                    |               |
|---------------------|--------------------|---------------|
| <b>Symposium D3</b> | <b>10:00–11:30</b> | <b>Room D</b> |
|---------------------|--------------------|---------------|

|                                                                    |
|--------------------------------------------------------------------|
| <b>Nutraceuticals (Vitamins and Minerals) in Health Management</b> |
|--------------------------------------------------------------------|

Chairs:

- |                 |                                                                                                                                                                                                                                                                               |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SYD3-1<br>10:00 | <b>Molecular mechanisms of intestinal Zinc absorption and a novel strategy to target Zinc transporters</b><br>Taiho Kambe (Kyoto University, Japan)                                                                                                                           |
| SYD3-2<br>10:30 | <b>Role of NAD<sup>+</sup> metabolism in aging and diseases</b><br>Takashi Nakagawa (University of Toyama, Japan)                                                                                                                                                             |
| SYD3-3<br>11:00 | <b>Differential effects of orange juice constituents on vascular function and uric acid metabolism: Evidence from two randomized controlled trials</b><br>Caroline Gilcher (Geisenheim University, Germany)                                                                   |
| SYD3-4<br>11:10 | <b>Co-occurrence of vitamin D deficiency, obesity, food insecurity, and common mental disorders as risk factors for gestational diabetes mellitus among pregnant women in Malaysia: A syndemic perspective</b><br>Lee Siew Siew (University of Nottingham Malaysia, Malaysia) |
| SYD3-5<br>11:20 | <b>Functional characterization of a Zinc-enriched onion and its potential in metabolic regulation</b><br>Daigo Urakawa (Kagoshima University, Japan)                                                                                                                          |

|                     |                    |               |
|---------------------|--------------------|---------------|
| <b>Symposium E3</b> | <b>10:00–11:30</b> | <b>Room E</b> |
|---------------------|--------------------|---------------|

|                                                               |
|---------------------------------------------------------------|
| <b>Digestion, Absorption, Metabolism, and Bioavailability</b> |
|---------------------------------------------------------------|

Chairs:

- SYE3-1    **Water-soluble vitamins and urate share physiological transporters**  
 10:00    Tappei Takada (The University of Tokyo, Japan)
- SYE3-2    **Suppressive effect of cereal albumin on postprandial blood glucose elevation and its mechanism**  
 10:30    Kazumi Ninomiya (Gunma University, Japan)
- SYE3-3     **$\beta$ -linked glucose-fructose disaccharide enhances cecal  $\beta$ -glucosidase activity and improves hesperidin absorption**  
 11:00    Takumi Wakabayashi (Tokyo University of Marine Science and Technology, Japan)
- SYE3-4    **Evaluation of nutrient and bioactive bioaccessibility of young Jackfruit-based vegan meatballs**  
 11:10    Maria Afroz Toma (University of Leeds, UK)
- SYE3-5    **Regulation of intestinal glucose and fructose transporters SGLT1 and GLUT5 by phytochemicals**  
 11:20    Hideo Satsu (Gunma University, Japan)

|                     |                    |               |
|---------------------|--------------------|---------------|
| <b>Symposium F3</b> | <b>10:00–11:30</b> | <b>Room F</b> |
|---------------------|--------------------|---------------|

|                                                      |
|------------------------------------------------------|
| <b>Cellular Senescence: Mechanism and Prevention</b> |
|------------------------------------------------------|

**Sponsored by SUNTORY WELLNESS**

Chairs:

- SYF3-1    **Systematic comparison of senolytics identifies mitochondrial quality control as a key determinant of resistance**  
 10:00    Eiji Hara (Osaka University, Japan)
- SYF3-2    **Plasma membrane damage-dependent senescence: Implications for age-related pathologies and strategies for intervention**  
 10:30    Keiko Kono (Okinawa Institute of Science and Technology, Japan)
- SYF3-3    **Lysosomes as hubs of phytochemical sensing, signaling, and cellular senescence regulation**  
 11:00    Yuki Marugame (Waseda University, Japan)
- SYF3-4    **Food factors open the nuclear gate to activate autophagy and lysosomal function**  
 11:15    Satoshi Yano (Waseda University, Japan)

|                          |                    |               |
|--------------------------|--------------------|---------------|
| <b>Symposium G3</b>      | <b>10:00–11:30</b> | <b>Room G</b> |
| <b>Garlic and Health</b> |                    |               |

Sponsored by Wakunaga Pharmaceutical Co., Ltd.

Chairs:

- SYG3-1     **The synergistic integration of aged garlic extract supplementation and neural progenitor transplantation for the treatment of enteric neuropathies and gastrointestinal disorders**  
10:00     Ryo Hotta (Harvard Medical School, USA)
- SYG3-     **Aged garlic extract attenuates pulmonary fibrosis via NF-κB inhibition**  
210:30     Haruki Hirakawa (Juntendo University, Japan)
- SYG3-     **S-1-propenylcysteine in aged garlic extract promotes adipose eNAMPT secretion and improves age-related muscle function via hypothalamic signaling**  
310:55     Jun-ichiro Suzuki (Wakunaga Pharmaceutical Co., Ltd., Japan)
- SYG3-     **Diallyl trisulfide, a garlic-derived organosulfur compound, promotes inflammation resolution through TRPA1-independent inhibition of NF-κB DNA binding**  
411:20     Chihiro Koshio (Nihon University, Japan)

Lunch Session

|                       |                    |               |
|-----------------------|--------------------|---------------|
| <b>Symposium A4</b>   | <b>13:00–14:30</b> | <b>Room A</b> |
| <b>Brain-Gut-Axis</b> |                    |               |

Co-organized by BIW (Bio-intelligence for well-being) consortium

Sponsored by Mizkan Co., Ltd.

Chairs:

- SYA4-1     **From taste to metabolism: Integrating bitter food intake into the brain–gut axis**  
13:00     Jessica A Grieger (The University of Adelaide and Robinson Research Institute, Australia)
- SYA4-2     **Bitter taste receptors: Key target to understand the effects of polyphenols on energy (glucose and body weight) homeostasis**  
13:30     Marta Trius-Soler (University of Copenhagen, Denmark)
- SYA4-3     **Astringent flavanols as sensory triggers of Locus Coeruleus-Noradrenergic Activation, neurobehavioral enhancement, and autonomic response**  
14:00     Yasuyuki Fujii (Osaka Metropolitan University, Japan)

|                     |                    |               |
|---------------------|--------------------|---------------|
| <b>Symposium B4</b> | <b>13:00–14:30</b> | <b>Room B</b> |
|---------------------|--------------------|---------------|

|                                                        |
|--------------------------------------------------------|
| <b>Antioxidant and Redox Regulation on Polyphenols</b> |
|--------------------------------------------------------|

Chairs:

- SYB4-1    **Mechanisms of redox regulation at the gastrointestinal tract by flavan-3-ols and procyanidins**  
 13:00    Patricia I. Oteiza (UC DAVIS, USA)
- SYB4-2    **Evaluation of the antioxidant activity and bioavailability of quercetin and its structural analogues.**  
 13:30    Toshiyuki Nakamura (Okayama University, Japan)
- SYB4-3    **Baseline-dependent carbonyl buffering governs human response to green tea**  
 14:00    Shengmin Sang (North Carolina Agricultural and Technical State University, USA)
- SYB4-4    **Beyond antioxidants: Covalent targeting of proteins by tea catechins in intracellular environments**  
 14:10    Yoji Kato (University of Hyogo, Japan)

|                     |                    |               |
|---------------------|--------------------|---------------|
| <b>Symposium C4</b> | <b>13:00–14:30</b> | <b>Room C</b> |
|---------------------|--------------------|---------------|

|                                |
|--------------------------------|
| <b>Vitamins and Biofactors</b> |
|--------------------------------|

Chairs:

- SYC4-1    **Vitamin E – an antioxidant with an active lipid body**  
 13:00    Jean-Marc Zingg (University of Miami, USA)
- SYC4-2    **Anti-aging effects of vitamin K**  
 13:30    Hitoshi Shirakawa (Tohoku University, Japan)
- SYC4-3    **Thionation of natural quercetin enables its antimelanoma activity**  
 14:00    Wojciech Witkowski (University of Warsaw, Poland)
- SYC4-4    **Oxidative metabolites of curcumin mediate inflammatory regulation through protein modification**  
 14:15    Miaki Yamaoka (Nagoya University, Japan)

|                     |                    |               |
|---------------------|--------------------|---------------|
| <b>Symposium D4</b> | <b>13:00–14:30</b> | <b>Room D</b> |
|---------------------|--------------------|---------------|

|                                                                                 |
|---------------------------------------------------------------------------------|
| <b>Advances in Dietary Bioactives: Polyphenols, Terpenoids, and Carotenoids</b> |
|---------------------------------------------------------------------------------|

Co-organized by Japan Society of Nutrition and Food Science (JSNFS)

Chairs:

- SYD4-1    **Metabolism and cellular responses to exogenous carotenoids**  
 13:00    Yuki Manabe (Kyoto University, Japan)
- SYD4-2    **TBA**  
 13:30    Bohkyung Kim (Pusan National University, Republic of Korea)

- SYD4-3 **Bilobalide restores mitochondrial function and autophagy to reverse sarcopenic obesity in murine models**  
 14:00  
 Gwang-woong Go (Hanyang University, Republic of Korea)

| Symposium E4                                                                               | 13:00–14:30 | Room E |
|--------------------------------------------------------------------------------------------|-------------|--------|
| <b>Molecular Mechanisms Underlying the Functional Properties of Tea, Coffee, and Cocoa</b> |             |        |

Chairs:

- SYE4-1 **Elucidating the mechanisms of action of green tea catechins and their applications**  
 13:00 Motofumi Kumazoe (Kyushu University, Japan)
- SYE4-2 **Molecular mechanisms underlying the multifunctional bioactivities of 1,2,3,4,6-penta-O-galloyl-beta-D-glucose**  
 13:30 Yoonhee Kim (Daegu University, Republic of Korea)
- SYE4-3 **Cocoa bean polyphenols inhibits pyroptosis following inflammasome activation**  
 14:00 Yasuaki Matsushima (The University of Osaka, Japan)
- SYE4-4 **The effects of green tea high in flavan-3-ols on blood viscosity and coagulation in older adults**  
 14:15 Emily Waterfield (University of Reading, UK)

| Symposium F4               | 13:00–14:30 | Room F |
|----------------------------|-------------|--------|
| <b>Aging and Nutrition</b> |             |        |

Sponsored by SUNTORY WELLNESS

Chairs:

- SYF4-1 **Improvement of age-related malnutrition through food factors: Preclinical studies on frailty**  
 13:00 Takahiko Shimizu (Juntendo University, Japan)
- SYF4-2 **Longevity and the secrets of the centenarians**  
 13:30 Mario Barbagallo (University of Palermo, Italy)
- SYF4-3 **TBA**  
 14:00

**Student Award Session 2****13:00–14:30 Room G**

Chairs:

- SAG4-1  
13:00 **Effects of flavonoids on circadian clock genes and phosphoproteomic profiles: Comparing two dosing approaches**  
Noha Sulaimani (Monash University, Australia)
- SAG4-2  
13:05 **Evaluation of antioxidant and anti-aging properties of Mikania micrantha ethanol extracts: A potential natural ingredient for skin aging prevention**  
Mustansir Abbas (Da-Yeh University, Taiwan)
- SAG4-3  
13:10 **Targeting metabolic syndrome: A novel sunflower-derived peptide with dual antidiabetic and antihypertensive activity**  
Sanchez-McSweeney A. (ARC Industrial Transformation Training Centre for Facilitated Advancement of Australia's Bioactives, Australia)
- SAG4-4  
13:15 **Effects of probiotic supplementation on lung immune cell mobilization in chronic alcohol-fed rats through gut-liver-lung axis**  
Yi-Hsiu Chen (Taipei Medical University, Taiwan)
- SAG4-5  
13:20 **Effect of high-bioavailability quercetin for 6 weeks on plasma uric acid in overweight/obese subjects consuming a fructose- and purine- rich diet: a randomised, double-blinded, placebo-controlled, crossover trial**  
Lu Liu (Monash University, Australia)
- SAG4-6  
13:25 **The adaptogenic effect of ashwagandha root powder on the microbiome-gut-brain axis: Impact on cognitive function, the gut microbiome, stress, and inflammation**  
Sana Boutefnouchet (University of East Anglia, UK)
- SAG4-7  
13:30 **Phytochemical-rich plant extracts for appetite regulation: systematic literature review, in vitro studies and a human intervention trial**  
Woon Yao Chai (Monash University, Australia)
- SAG4-8  
13:35 **Establishment and mechanistic analysis of a fructose-responsive in vitro hepatic steatosis model using primary hepatocytes**  
Hiroki Takahashi (Osaka Metropol. Univ, Japan)
- SAG4-9  
13:40 **Dietary nutrient composition regulates phenol production: a high L-tyrosine diet is linked to skeletal muscle atrophy in mice**  
Kisaki Ikeda (University of Shizuoka, Japan)
- SAG4-10  
13:45 **Melinjo seed extract (MSE) improves cognitive function in D-galactose-induced-brain aging model mice**  
Ilmi Dewi Astuti (Tohoku University, Japan)
- SAG4-11  
13:50 **Structural insights into the interaction between flavonoids and bitter taste receptor: Integration of molecular dynamics simulations, sensory perception, and skn-1a-dependent metabolic regulation**  
Takafumi Shimizu (Shibaura Institute of Technology, Japan)

- SAG4-12    **The suppression of glucose transport by phenolic extracts derived from Fonio grain (*Digitaria exilis*)**  
13:55    Huu Nghia Bui (Kyoto University, Japan)
- SAG4-13    **Solubilized lignin ameliorates insulin resistance by promoting the growth of *Akkermansia muciniphila***  
14:00    Takuto Kurakawa (Toyama Prefectural University, Japan)
- SAG4-14    **Gut microbiota influence host thiamine status through microbial utilization of dietary thiamine**  
14:05    Takuya Yoshioka (The University of Osaka, Japan)
- SAG4-15    **Integrated analysis of gut microbiota alterations and associated host responses in rats fed Awa-bancha, a lactic acid-fermented tea: comparison with green tea**  
13:10    Toshiki Matsue (Kagawa University, Japan)
- SAG4-16    **GABA and its brain-specific dipeptide homocarnosine: linkages with prebiotics and gut microbiota and their novel brain functions**  
13:15    Pichamon Namkiet (Hiroshima University, Japan)
- SAG4-17    **A multi-stage in vitro gut model reveals metabolic and spatial dysbiosis in long COVID with implications for intestinal barrier integrity**  
13:20    Megan Pott (University of Leeds, UK)
- SAG4-18    **Effects of banana blossom extract on milk production and gut microbiota in lactating mice**  
13:25    Md Moniruzzaman (Hiroshima University, Japan)

Coffee Break

## Symposium A5

15:00–16:30    Room A

### Brain Health and Cognitive Function

Chairs:

- SYA5-1    **Associations of (poly)phenol intake with neurodegenerative disease**  
15:00    Amy Jennings (Queen's University Belfast, UK)
- SYA5-2    **Microbial phenolic metabolites and cognitive performance**  
15:30    Rosa M Lamuela-Raventós (University of Barcelona, Spain)
- SYA5-3    **Olive-derived polyphenol oleuropein stimulates peripheral serotonin secretion and acutely regulates central function**  
16:00    Yuki Kamei (Tokushima University, Japan)
- SYA5-4    **Effects of 12-month green tea catechin intake on cognitive function and tryptophan metabolism-related factors in mice fed a high-fat/high-sucrose diet**  
16:15    Yuzuki Goshi (Fukushima University, Japan)

| Symposium B5                                                    |  | 15:00–16:30 | Room B |
|-----------------------------------------------------------------|--|-------------|--------|
| New Frontiers in Food-Gut Microbe Crosstalk and Health Outcomes |  |             |        |

Chairs:

- SYB5-1    **Health promotion by postbiotics as food-derived gut microbial metabolites**  
 15:00    Jun Ogawa (Kyoto University, Japan)
- SYB5-2    **From gut microbiome to precision nutrition: Integrating human cohorts, microbial ecology, and translational innovation**  
 15:30    Jun Kunisawa (National Institutes of Biomedical Innovation, Health and Nutrition, Japan)
- SYB5-3    **Fiber-bound phenolic acids and their role in gut microbiota modulation**  
 16:00    Ilay Turkmen (University of Reading, UK)
- SYB5-4    **3,5-Dihydroxybenzoic acid prevents chronic inflammation by inhibiting the production of gut bacterial metabolite phenol**  
 16:15    Shiori Oishi (University of Shizuoka, Japan)

| Symposium C5  |  | 15:00–16:30 | Room C |
|---------------|--|-------------|--------|
| Oils and Fats |  |             |        |

Chairs:

- SYC5-1    **Mechanistic elucidation of the formation of 2-alkanones and lactones via saturated fatty acid oxidation**  
 15:00    Kanji Aoyagi (The Nisshin OilIIO Group, Ltd., Japan)
- SYC5-2    **Study of the acidic compounds derived from triacylglycerol that contribute to acid value increment**  
 15:22    Toshiro Sato (J-OIL MILLS, Inc., Japan)
- SYC5-3    **Elucidating the potent antioxidative mechanism of blending rice bran oil at ambient temperature**  
 15:44    Shota Koishi (Tsuno Food Industrial Co., Ltd., Japan)
- SYC5-4    **Unique photo-oxidation resistance of red chili oil arising from the balance between photo-oxidation promoters and inhibitors**  
 16:06    Yuri Nakagawa (S&B FOODS INC., Japan)

|                     |                    |               |
|---------------------|--------------------|---------------|
| <b>Symposium D5</b> | <b>15:00–16:30</b> | <b>Room D</b> |
|---------------------|--------------------|---------------|

|                                                |
|------------------------------------------------|
| <b>Best Practices in (Poly)phenol Research</b> |
|------------------------------------------------|

**Co-organized by UK Nutrition Society Special Interest Group on Phytochemicals and health**

Chairs:

**SYD5-1 Best practice in clinical trials of polyphenols for dietary recommendations**

15:00 Charlotte Mills (University of Reading, UK)

**SYD5-2 Best practices for the analysis of polyphenols in foods and biological samples: From chemical characterization to biomarker discovery**

15:30

Rocio Garcia Villalba (CEBAS-CSIC Murcia, Spain)

**SYD5-3 Best practices in polyphenol research: from mechanisms to proof of concept studies**

16:00 Claudia Nunes dos Santos (Universidade Nova de Lisboa, Portugal)

|                     |                    |               |
|---------------------|--------------------|---------------|
| <b>Symposium E5</b> | <b>15:00–16:30</b> | <b>Room E</b> |
|---------------------|--------------------|---------------|

|                                                          |
|----------------------------------------------------------|
| <b>Food Processing, Safety Management and Shelf-life</b> |
|----------------------------------------------------------|

Chairs:

**SYE5-1 The quality and safety concerns of novel food products**

15:00 Chaniphun Butryee (Mahidol University, Thailand)

**SYE5-2 Understanding the structure of water for food processing optimization**

15:30 Daitaro Ishikawa (Tohoku University, Japan)

**SYE5-3 Evaluation of sausage surface color as affected by citrus peel extract - Incorporated modified casings using response surface methodology and multivariate analysis**

16:00

Feng Chaohui (Kitami Institute of Technology, Japan)

**SYE5-4 Long-term safety assessment and neuroprotective effects of solid-state fermented Cordyceps militaris on brown rice and sprouted pigeon pea in D-galactose-induced aging mice: a network pharmacology-supported study**

16:10

Tuzz Ying Song (Da-Yeh University, Taiwan)

**SYE5-5 Optimization, multi-omic characterization, and probiotic potential of flavored fermented rice water (FFRW) from pigmented rice varieties**

16:10

S. Chakkaravarthi (National Institute of Food Technology Entrepreneurship and Management - Kundli, India)

|                     |                    |               |
|---------------------|--------------------|---------------|
| <b>Symposium F5</b> | <b>15:00–16:30</b> | <b>Room F</b> |
|---------------------|--------------------|---------------|

|                                                                                                                   |
|-------------------------------------------------------------------------------------------------------------------|
| <b>Beyond Borders of Taste: Exploring the Role of Umami and Koku (Kokumi) in Japanese and Global Food Culture</b> |
|-------------------------------------------------------------------------------------------------------------------|

Chairs:

**SYF5-1 TBA**

15:00 Ciarán Forde (Wageningen University & Research, Netherlands)

- SYF5-2 **A first definition of Koku: An integrated sensory experience of taste, aroma, and texture**  
15:40 Toshihide Nishimura (Umami information center, Japan)
- SYF5-3 **Kokumi assessment of S-((4-amino-2-methylpyrimidin-5-yl)methyl)-L-cysteine, glutathione and  $\gamma$ -glutamyl-valyl-glycine by using a naive panel**  
16:10 Angelina Hopf (Wageningen University & Research)
- SYF5-4 **The shape of flavour: exploring koku through the kiki-bouba axis**  
16:20 Aaron Thong (Singapore Institute of Food and Biotechnology Innovation (SIFBI), Agency for Science, Technology and Research (A\*STAR), Singapore)

**Student Award Session 3****15:00–16:25 Room G**

Chairs:

- SAG5-1 **Mechanism underlying selective suppression of the proliferation of colon polyp cells by kinetin riboside**  
15:00 Tomoki Matsumoto (University of Hyogo, Japan)
- SAG5-2 **Preventive effect of beta-hydroxybutyrate on adenine-induced chronic kidney disease**  
15:05 Honoka Hiranouchi (Hiroshima University, Japan)
- SAG5-3 **Oleamide induces myotube hypertrophy via cannabinoid receptor 1–G $\alpha$ 12/G $\alpha$ 13 signaling pathway**  
15:10 Mai Kubota (Osaka Metropolitan Univ., Japan)
- SAG5-4 **Flavonoids and the human brain: Mechanistic insights from a randomised controlled trial**  
15:15 Jasmine B. Yeh (University of Birmingham, UK)
- SAG5-5 **Curcumin inhibits tryptophan indole-lyase and reduces indole production in gut bacteria**  
15:20 Misaki Matsui (University of Shizuoka, Japan)
- SAG5-6 **Effect of polyunsaturated fatty acid ratio on hormone production in KGN cells**  
15:25 Aoi Akiyama (Nara Women's Univ., Japan)
- SAG5-7 **A polymethoxyflavone nobiletin inhibits replication of coronaviruses in the host cell**  
15:30 Sae Toda (Tokushima Univ., Japan)
- SAG5-8 **Natural compound suppressing fumarate production attenuates atherosclerosis in ApoE-deficient mice**  
15:35 Himeno Takahashi (Tokai University, Japan)
- SAG5-9 **Comparative evaluation of the immuno-stimulatory potential of root extracts from *Glycyrrhiza glabra* and *Platycodon grandiflorus***  
15:40 See Man Lee (The University of Tokyo, Japan)
- SAG5-10 **From olive oil to oncology: Hydroxytyrosol potentiates irinotecan by targeting cancer stem cells in metastatic colorectal cancer spheroids**  
15:45 Ana Catarina Macedo (Instituto de Biologia Experimental e Tecnológica, Portugal)

- SAG5-11 **Vitamin B6 deficiency and supplementation impair muscle regeneration and hypertrophy**  
15:50  
Chanikan Bumrunkit (Hiroshima University, Japan)
- SAG5-12 **Attempt to analyze temporal correlations between the signal complexity of electroencephalogram and heart rate variability after gamma-aminobutyric acid (GABA) Intake**  
15:55  
Taku Inoue (Shizuoka University, Japan)
- SAG5-13 **Docosahexaenoic acid and eicosapentaenoic acid promote the phagocytic clearance of amyloid  $\beta$  by microglia-like cells**  
16:00  
Tsubasa Sato (Nihon Univ., Japan)
- SAG5-14 **Protective effects of Sargassum miyabei on hepatic steatosis and fibrogenesis in cellular models of MASLD**  
16:05  
Jinkyung Kim (Pusan National University, Republic of Korea)
- SAG5-15 **Krill oil promotes slow-twitch muscle fiber conversion in mouse skeletal muscle**  
16:10  
Daiki Murakami (Nihon University, Japan)
- SAG5-16 **Anthocyanin-rich bilberry extract regulates intestinal and hepatic cholesterol homeostasis**  
16:15  
Jimin Hong (Pusan National University, Republic of Korea)
- SAG5-17 **Reduced upper respiratory tract infection susceptibility following supplementation with a standardized brown poplar-type propolis extract: clinical evidence and immune response profiling**  
16:20  
Morgane Jaffrel (Innovation and Scientific Affairs, Biotexia, Vendres, France)

Poster Session 2 (16:45-18:15)

Banquet (19:00-21:00)

## Friday, October 16

## Plenary Lecture 3

8:30–9:30 Main Hall

- Chair:
- PL3 **Flavonoids and human health: Why understanding their mechanism of action matters**  
8:30 Jeremy Spencer (University of Reading, UK)

Coffee Break

## Symposium A6

10:00–11:30 Room A

**The Trajectory of Aging Through the Microbial Lens: *Harnessing the Microbiome for Lifelong Health***

Co-organized by Danone Institute

Chair:

- SYA6-1 **Anti-frailty factors emerging from the Kyotango Longevity Cohort: Social Bonds (KIZUNA), diet–microbiome interactions, physical activity, and IKIGAI**  
10:00 Yuji Naito (Kyoto Prefectural University of Medicine, Japan)
- SYA6-2 **Microbiome and metabolic signatures of healthy and accelerated ageing: impact of nutritional interventions**  
10:30 Elaine Holmes (The Hong Kong University of Science and Technology, Hong Kong)
- SYA6-3 **How the ageing gut influences brain health and what (poly)phenols can do about it**  
11:00 David Vauzour (University of East Anglia, UK)

## Symposium B6

10:00–11:30 Room B

**Nutritional Regulation of Epigenetics**

Chairs:

- SYB6-1 **Maternal protein restriction during pregnancy causes epigenetic alteration leading to exacerbated salt sensitivity in pups of spontaneously hypertensive rats**  
10:00 Hisanori Kato (Japan Nutrition University, Japan)
- SYB6-2 **Nutritional regulation of epigenetics: Interactions between nutrients, microbiome, and human health**  
10:30 Rina Agustina (University of Indonesia, Indonesia)
- SYB6-3 **Phenyl-γ-varelolactone metabolites modulate gene expression and miRNA expression in pancreatic β-cells under oxidative stress**  
11:00 Layanne Nascimento Fraga (University of São Paulo, Brazil)
- SYB6-4 **Elevated circulating GABA as a novel and potent anorexigenic factor**  
11:15 Thanutchaporn Kumrungsee (Hiroshima University, Japan)

| Symposium C6         | 10:00–11:30 | Room C |
|----------------------|-------------|--------|
| <b>Lipid Quality</b> |             |        |

Chairs:

- SYC6-1    **Biology of LipoQuality and the lipidome atlas**  
10:00    Makoto Arita (Keio University, Japan)
- SYC6-2    **Phospholipid quality and skeletal muscle function**  
10:30    Shinji Miura (University of Shizuoka, Japan)
- SYC6-3    **Lysophosphatidylcholine derived from marine byproducts inhibits leukotriene production by mouse mast cells**  
11:00    Mikako Takasugi (Kyushu Sangyo University, Japan)
- SYC6-4    **Wine lees extract (WLE)-derived ceramides modulate membrane lipid composition in human epidermal keratinocytes**  
11:10    Mengyao Chen (Pharma Foods International Co., Ltd., Japan)
- SYC6-5    **Krill oil attenuates shifts in fiber composition and changes in phospholipid composition in a mouse model of disuse muscle atrophy**  
11:20    Hiyori Hatayama (Nihon University, Japan)

| Symposium D6                                  | 10:00–11:30 | Room D |
|-----------------------------------------------|-------------|--------|
| <b>Precision Nutrition &amp; Food Factors</b> |             |        |

Chairs:

- SYD6-1    **Mapping food complexity: Polyphenols in the precision nutrition landscape**  
10:00    Colin D Kay (Arkansas Children's Nutrition Center, USA)
- SYD6-2    **Dietary tannins as key food factors in precision nutrition: Bridging chemical structure and bioavailability**  
10:30    Hideyuki Ito (National Institutes of Biomedical Innovation, Health and Nutrition, Japan)
- SYD6-3    **Advancing the establishment of precision chrononutrition**  
11:00    Yu Tahara (Hiroshima University, Japan)

| Symposium E6                                                                             |  | 10:00–11:30 | Room E |
|------------------------------------------------------------------------------------------|--|-------------|--------|
| The Diverse Roles of Hormesis in the Mechanisms of Functional Expression of Food Factors |  |             |        |

Chairs:

- SYE6-1 **Hormetic dose response and sensory nutrition: The future of neuronutrition in longevity science**  
10:00  
Vittorio Calabrese (University of Catania, Italy)
- SYE6-2 **Low-dose pollutants and chronic disease: From external exposure to internal burden and hormesis**  
10:30  
Duk-Hee Lee (Kyungpook National University, Republic of Korea)
- SYE6-3 **Xenobiotic phytochemicals as inducers of hormesis: A molecular basis for their physiological functions**  
11:00  
Akira Murakami (University of Hyogo, Japan)

| Symposium F6              |  | 10:00–11:30 | Room F |
|---------------------------|--|-------------|--------|
| AI and ML in Food Science |  |             |        |

Chairs:

- SYF6-1 **Empowering precision nutrition: An AI-driven PHR-integrated platform with international data standards**  
10:00  
Chien-Yeh Hsu (National Taipei University of Nursing and Health Sciences, Taiwan)
- SYF6-2 **Computational characterization of a vitamin E and catechin receptor associated with renoprotection in diabetic nephropathy**  
10:30  
Daiki Hayashi (Kobe University, Japan)
- SYF6-3 **Screening of tyrosine phenol-lyase inhibitors using machine learning based on the molecular structures of dietary polyphenols**  
11:00  
Misaki Morikawa (University of Shizuoka, Japan)
- SYF6-4 **Mapping genetic variation in taste and olfactory receptor genes to human food preferences in a large population study**  
11:10  
Daniel Liang-Dar Hwang (The University of Queensland, Australia)
- SYF6-5 **AI-assisted non-targeted metabolomics reveals bioactive signatures of coffee byproducts with anti-inflammatory potential**  
11:20  
Hong-Jhang Chen (National Taiwan University, Taiwan)

| Symposium G6                                         |  | 10:00–11:30 | Room G |
|------------------------------------------------------|--|-------------|--------|
| Application of Advanced Methods to Clarify Causality |  |             |        |

Chairs:

|                 |                                                                                                                                                                                                                                             |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SYG6-1<br>10:00 | <b>Estimating the effect of moderate wine consumption on cardiovascular risk: a target trial emulation in US adults</b><br>Yu-Han Chiu (Brown University, USA)                                                                              |
| SYG6-2<br>10:30 | <b>Re-interpreting the COSMOS trial using win-ratio statistics and external control integration</b><br>Rikuta Hamaya (Harvard Medical School, USA)                                                                                          |
| SYG6-3<br>11:00 | <b>High-adherence supplement of cocoa flavanols and omega-3 fatty acids for older adults at risk of cognitive decline: a precision biomarker pilot</b><br>Suzannah Gerber (Dartmouth Geisel School of Medicine, USA)                        |
| SYG6-4<br>11:15 | <b>Effect modification of cocoa extract on cardiovascular outcomes by RAAS inhibitors and diuretics: A secondary analysis of the COSMOS randomized trial</b><br>Ryosuke Imai (Brigham and Women's Hospital and Harvard Medical School, USA) |

Lunch Session

Poster Session 3 (12:45-13:30)

| Symposium A7                     |  | 13:30–15:00 | Room A |
|----------------------------------|--|-------------|--------|
| Clinical Trials and Epidemiology |  |             |        |

Chairs:

|                 |                                                                                                                                                                                                                   |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SYA7-1<br>13:30 | <b>Bifidobacterium as a modulator of biological ageing</b><br>Toshitaka Odamaki (MORINAGA MILK INDUSTRY CO., LTD., Japan)                                                                                         |
| SYA7-2<br>14:00 | <b>When more is not better: Dietary bioactive diversity and chronic disease risk—Insights from flavonoid epidemiology</b><br>Benjamin Parmenter (ECU's Nutrition & Health Innovation Research Institute, Austria) |
| SYA7-3<br>14:30 | <b>Clinical trials of fermentable dietary fiber on microbiota and these metabolites in Japanese adults</b><br>Seiichiro Aoe (Otsuma Women's University, Japan)                                                    |

| Symposium B7                           |  | 13:30–15:00 | Room B |
|----------------------------------------|--|-------------|--------|
| Marine Bioactives for Health and Aging |  |             |        |

Chairs:

- SYB7-1    **Marine-derived carotenoids as food factors targeting aging: Dietary astaxanthin and fucoxanthin against skin aging and photoaging**  
13:30    Tatsuya Sugawara (Kyoto University, Japan)
- SYB7-2    **Marine plasmalogens restore lipid homeostasis and cognitive performance via lipophagy and TrkA/p75NTR neurotrophin signaling**  
13:50    Jie Xu (Ocean University of China, China)
- SYB7-3    **Dietary fish (Alaska pollock) protein protects against age-related working memory decline in senescence-accelerated mice**  
14:20    Ryota Hosomi (Kansai University, Japan)
- SYB7-4    **Fucoidan modulates microbial tryptophan metabolism and gut–brain axis responses in DSS-induced colitis**  
14:40    Hyemee Kim (Pusan National University, Busan, Republic of Korea)
- SYB7-5    **Anti-inflammatory mechanisms of apofucoxanthinoids and their inhibitory effects on diet-induced obesity model mice**  
14:50    Naoki Takatani (Hokkaido University, Japan)

| Symposium C7                         |  | 13:30–15:00 | Room C |
|--------------------------------------|--|-------------|--------|
| Functions of Green Tea and Black Tea |  |             |        |

Co-organized by The Japanese Society for Catechin Research

Supported by The Tojuro Iijima Foundation for Food Science and Technology

Chairs:

- SYC7-1    **Health effects of tea catechins as antimicrobial agents**  
13:30    Hiroshi Yamada (University of Shizuoka, Japan)
- SYC7-2    **Black tea and systemic inflammation: Synthesising the evidence on inflammatory markers and disease modulation**  
14:00    Tim Bond (Tea Advisory Panel, Bedford, UK)
- SYC7-3    **Contrasting interactions of monomeric and oxidatively condensed tea catechins with biomolecules**  
14:30    Asako Narai-Kanayama (Nippon Veterinary and Life Science University, Japan)
- SYC7-4    **Effects of black tea polyphenols on gut microbiota and immunity: A randomized controlled trial**  
14:40    Yuko Tanaka (R&D Unit, Mitsui Norin Co., Ltd., Japan)
- SYC7-5    **Green tea extract suppresses colorectal cancer progression via microbiome-driven immunomodulation**  
14:50    Yi-Lin Chan (Chinese Culture University, Taiwan)

| Symposium D7              |                                                                                                                                                                                                                                                                                                            | 13:30–15:00 | Room D |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------|
| <b>Bioactive Peptides</b> |                                                                                                                                                                                                                                                                                                            |             |        |
| Chairs:                   |                                                                                                                                                                                                                                                                                                            |             |        |
| SYD7-1<br>13:30           | <b>Sequence-dependent cognitive effects of Gln-X dipeptides via CaSR-mediated regulation of BDNF expression</b><br>Shigeru Katayama (Shinshu University, Japan)                                                                                                                                            |             |        |
| SYD7-2<br>14:00           | <b>Dietary <math>\gamma</math>-Glutamyl Valine (<math>\gamma</math>-EV) reduces vascular inflammation and slows the progression of high-fat diet-induced atherosclerosis, through modulation of gut microbiota in atherosclerosis-prone mice</b><br>Kaustav Majumder (University of Nebraska–Lincoln, USA) |             |        |
| SYD7-3<br>14:30           | <b>High-sensitivity detection of bioactive oligopeptides using methoxyacylation–LC–TIMS–qTOF/MS</b><br>Xiaoqi Yang (Kyushu University, Japan)                                                                                                                                                              |             |        |
| SYD7-4<br>14:40           | <b>Identification of a novel bifunctional peptide with both GLP-1-releasing and DPP-4-inhibitory effects</b><br>Chikayuki Funabashi (Hokkaido University, Japan)                                                                                                                                           |             |        |
| SYD7-5<br>14:50           | <b>Development of a novel method for dipeptide sequencing using a single-quadrupole mass spectrometer: Identification of food-derived peptides in human blood</b><br>Satoshi Miyauchi (Tokyo Kasei University, Japan)                                                                                      |             |        |

| YIA Session 3   |                                                                                                                                                                                                                                                                                                                      | 13:30–15:00 | Room E |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------|
| Chairs:         |                                                                                                                                                                                                                                                                                                                      |             |        |
| YSE7-1<br>13:30 | <b>Reduction of beany off-flavors using reaction flavor technology</b><br>Misaki Yamada (INABATA KORYO CO., LTD., Japan)                                                                                                                                                                                             |             |        |
| YSE7-2<br>13:40 | <b>Cross-sectional association between intake of flavan-3-ol-rich foods and urinary gamma-valerolactone metabolite levels in older adults from the COSMOS trial</b><br>Irene Sánchez Gavilan (Universidad Complutense de Madrid, Spain)                                                                              |             |        |
| YSE7-3<br>13:50 | <b>Deciphering the role of the low molecular weight phenolics in neuroinflammation and Parkinson's Disease</b><br>Diogo Carregosa (Universidade Nova de Lisboa, Portugal)                                                                                                                                            |             |        |
| YSE7-4<br>14:00 | <b>Gamma-aminobutyric acid (GABA) ingestion (200 mg) improves standardized multitask competitive-gaming performance and frontal Electroencephalography (EEG) activity in eSports: A randomized, double-blind, placebo-controlled crossover trial</b><br>Hiroaki Yamada (Pharma Foods International Co., Ltd., Japan) |             |        |
| YSE7-5<br>14:10 | <b>(Poly)phenol intake and cognitive performance, MRI-derived brain structure/function, and circulating biomarkers in adults: A multimodal observational analysis</b><br>Brian Óg Murphy (Ulster University, UK)                                                                                                     |             |        |

- YSE7-6      **Characterisation of gut-brain axis-mediated pro-cognitive and antidepressant effects using orally active peptides**  
14:20      Biyun Zhang (Kyoto University Japan)
- YSE7-7      **Early-life exposure to Chinese olive (*Canarium album* L.) extract extends lifespan and improves healthspan in *Caenorhabditis elegans***  
14:30      Chun-Wai Chan (National Taiwan University, Taiwan)

**General Session 2****13:30–15:00    Room F**

Chairs:

- GSF7-1      **Mapping the landscape of efficacy and safety of gamma-aminobutyric acid (GABA) as a functional food ingredient**  
13:30      Xuan Li (Pharma Foods International Co., Ltd., Japan)
- GSF7-2      **An oral processing simulator equipped with a biomimetic tongue to quantify and elucidate food mouthfeel: An enabling technology for sustainable food development**  
13:40      Siavash Soltanahmadi (University of Leeds, UK)
- GSF7-3      **Continuous intake of olive polyphenols in extra virgin olive oil reduces the F/B ratio in human gut microbiota**  
13:50      Motoki Miyakita (The Nisshin OilliO Group, Ltd., Japan)
- GSF7-4      **Gut microbiota stratification influences the metabolic fate and biotransformation of *Passiflora tenuifolia* proanthocyanidins *in vitro***  
14:00      Neuza M. A. Hassimotto (University of São Paulo, Brazil)
- GSF7-5      **Lipase inhibitory activity of persimmon leaf tea flavonoids**  
14:10      Kaeko Murota (Osaka Metropolitan University, Japan)
- GSF7-6      **Can astringency induced by tea catechins be probed using biomimetic Lubrication methods, and how does Ca<sup>2+</sup> influence lubrication?**  
14:20      Lijing Ke (University of Leeds, UK)
- GSF7-7      **Beyond average responses: interindividual variability in postprandial glycemic responses to polyphenol-rich interventions**  
14:30      María-Teresa García-Conesa (CEBAS-CSIC, Spain)
- GSF7-8      **Inhibitory effects of astragalus *Membranaceus* leaf extract on allergic and inflammatory responses in immune cell models**  
14:40      Hirofumi Arai (Kitami Institute of Technology, Japan)

Coffee Break

**Symposium A8****15:30–17:00 Room A****Metabolic Syndrome and Related Diseases****Sponsored by Obesity (MDPI)**

Chairs:

**SYA8-1 New insights into lipid-lowering food protein-derived oligopeptides**

15:30 Satoshi Nagaoka (Gifu University, Japan)

**SYA8-2 The effects of eicosapentaenoic acid and citrus-derived flavonoids on the abnormal vascular smooth muscle contraction**

16:00 Hiroko Kishi (Shimane University)

**SYA8-3 Filbertone dictates resistance to hepatic ferroptosis via PERK-ATF4/Nrf2 activation**

16:30 Yeonsoo Joe (Daegu Haany University, Republic of Korea)

**Symposium B8****15:30–17:00 Room B****Molecular Sensing of Food Factors: New Frontiers in Healthspan**

Chairs:

**SYB8-1 TBA**

15:30 Taichi Hara (Waseda University, Japan)

**SYB8-2 67-kDa laminin receptor as a dietary polyphenol sensor**

16:00 Hirofumi Tachibana (Kyushu University, Japan)

**SYB8-3 Structural and functional characterization of food-derived phenolic compounds as novel GPR35 agonists**

16:30 Harumi Ando (Nagoya University, Japan)

**SYB8-4 Urolithin A activation via oxidative reactions: new anti-inflammatory insights beyond the stable metabolite**

16:40 Juan Antonio Gimenez Bastida (Quality, Safety &amp; Bioactivity Plant Foods, Food Science and Technology Dep., Spain)

**SYB8-4 The role of nuclear receptor, CAR, and indole-containing metabolites of bacterial origin in the development of sociability in adolescent mouse**

16:50 Akihito Yasuoka (Seitoku University, Japan)

| Symposium C8                                |                                                                                                                                                                                                                                     | 15:30–17:00 | Room C |
|---------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------|
| <b>Food Colloids, Physics and Chemistry</b> |                                                                                                                                                                                                                                     |             |        |
| Chairs:                                     |                                                                                                                                                                                                                                     |             |        |
| SYC8-1<br>15:30                             | <b>From raw insects to functional ingredients: Processing strategies and perspectives from Thailand</b><br>Sirithon Siriamornpun (Mahasarakham University, Thailand)                                                                |             |        |
| SYC8-2<br>16:00                             | <b>Chocolate seizing and recovery</b><br>Hironori Hondoh (University of Shizuoka, Japan)                                                                                                                                            |             |        |
| SYC8-3<br>16:30                             | <b>The effects of high hydrostatic pressure treatment on anti-nutrients contents, in vitro amino acid release and mineral digestibility of Pigeon pea.]</b><br>Chung-Yi Wang (National Formosa University, Taiwan)                  |             |        |
| SYC8-4<br>16:40                             | <b>Plasma-activated natural deep eutectic solvents: a proof-of-concept extraction platform for generating cytoprotective extracts from spent coffee grounds</b><br>Alexandros Ch. Stratakos (University of the West of England, UK) |             |        |
| SYC8-4<br>16:50                             | <b>Interfacial polyphenol-protein complexes for oxidation-resistant omega-3 delivery</b><br>Lim Su Hui (Singapore Institute of Food and Biotechnology Innovation, Singapore)                                                        |             |        |

| Symposium D8                                              |                                                                                                                                                             | 15:30–17:00 | Room D |
|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------|
| <b>Molecules and Functions of Soy, Legumes and Grains</b> |                                                                                                                                                             |             |        |
| Chairs:                                                   |                                                                                                                                                             |             |        |
| SYD8-1<br>15:30                                           | <b>Polyphenols in seed-coat of edible beans</b><br>Kumi Yoshida (Aichi Shukutoku University, Japan)                                                         |             |        |
| SYD8-2<br>16:00                                           | <b>Development of an SDG-friendly fermented rice bran product: From bench research to application</b><br>Suh-Ching Yang (Taipei Medical University, Taiwan) |             |        |
| SYD8-3<br>16:25                                           | <b>Cutting-edge function of soy and rice protein-derived peptides: From basic to clinical study</b><br>Kousaku Ohinata (Kyoto University, Japan)            |             |        |
| SYD8-4<br>16:50                                           | <b>Elucidation of gastrointestinal food signaling networks based on parallel synthesis of multiple peptides</b><br>Rentaro Inoue (Kyoto University, Japan)  |             |        |

**General Session 3****15:30–17:00 Room F**

Chairs:

- GSF8-1     **Control of physical properties in heat-set protein gels using MCTs**  
15:30     Soyoka Tokunaga (The Nisshin OilliO Group, Ltd., Japan)
- GSF8-2     **Early onset of facial hyperpigmentation and its association with carotenoid intake in young individuals: A cross-sectional study**  
15:40     Yoichi Fukushima (Daito Bunka University, Japan)
- GSF8-3     **Differential effects of green and black tea on mood, attention and blood pressure: an acute, double-blind, placebo-controlled study**  
15:50     Andrew Scholey (Northumbria University, UK)
- GSF8-4     **Multiscale Raman analysis of food factors: From foods to microbial cells**  
16:00     Masahiro Ando (Waseda University, Japan)
- GSF8-5     **Tissue-specific modulation of n-3 fatty acid profiles by  $\gamma$ -cyclodextrin inclusion of perilla oil in mice**  
16:10     Keisuke Yoshikiyo (Shimane University, Japan)
- GSF8-6     **Chinese olive (*Canarium album* L.) extract induces energy stress-associated alterations in mitochondrial dynamics and dysfunction in colorectal cancer**  
16:20     Shu-Chen Hsieh (National Taiwan University, Taiwan)
- GSF8-7     **Profile of aginate extracted from *Padina australis* brown seaweed as a feed additive candidate for poultry**  
16:30     Maria Endo Mahata (Universitas Andalas, Indonesia)
- GSF8-8     **Electrospinning of surfactant-free PVA-fish oil nanofibers: A novel approach for omega-3 encapsulation**  
16:40     Ong Sze Pheng (University of Nottingham Malaysia)

## Saturday, October 17

## Plenary Lecture 4

8:30–9:30 Main Hall

Chair:

- PL4 **Measurement of lipid oxidation: Antioxidant strategies for health**  
 8:30 Kiyotaka Nakagawa (Tohoku University, Japan)

Coffee Break

## Symposium A9

10:00–11:30 Room A

## Biomarkers, Analytical Methods and Omics Technologies

Chairs:

- SYA9-1 **Improvement of simultaneous evaluation system of food functions using targeted proteomics with machine learning**  
 10:00 Katsuhisa Kurogi (University of Miyazaki, Japan)
- SYA9-2 **Unraveling hidden health benefits in our food: Combination of metabolomics and nutritional epidemiology approach**  
 10:30 Sastia Prama Putri (Osaka University, Japan)
- SYA9-3 **Hair-based imaging mass spectrometry for longitudinal monitoring of stress-related biomarkers and evaluation of food-derived stress modulation**  
 11:00 Shu Taira (Fukushima University, Japan)

## Symposium B9

10:00–11:30 Room B

## Molecular Targets of Food Factors

Chairs:

- SYB9-1 **Structure-binding relationships of dietary flavonoids with human serum albumin and their impact on biological activity evaluation**  
 10:00 Rie Mukai (Tokushima University, Japan)
- SYB9-2 **Stimulus-dependent molecular targets of fisetin in inflammatory macrophages**  
 10:20 Kozue Sakao (Kagoshima University, Japan)
- SYB9-3 **Pyrroloquinoline quinone (PQQ)-mediated NQO1 activation enhances intracellular NAD<sup>+</sup> levels**  
 10:40 Nur Syafiqah Mohamad Ishak (Mitsubishi Gas Chemical Company, Japan)
- SYB9-4 **Linking olive oil bioactives to skin homeostasis through a first-wave/second-wave inflammation framework**  
 10:55 Kentaro Tsuji (DHC Corporation, Japan)

SYB9-5    **TBA**

11:10

**Symposium C9****10:00–11:30    Room C****The Science of Glycation: From Food Chemistry to Human Health and Disease****Co-organized by The Japanese Maillard Reaction Society**

Chairs:

SYC9-1    **Anti-inflammatory and immunomodulatory effects of papaverine, a natural alkaloid from the opium poppy, on imiquimod-induced psoriasis-like skin inflammation**  
 10:00    Nontaphat Leerach (Chulabhorn Royal Academy, Thailand)

SYC9-2    **The role of the Maillard reaction in food quality**  
 10:30    Kyoko Noda (Ochanomizu University, Japan)

SYC9-3    **Importance of glycation and succination in disease prediction and prevention**  
 10:50    Ryoji Nagai (Tokai University, Japan)

SYC9-4    **Glycation and RAGE in disease and aging: Balancing pathogenic signaling and physiological function for therapeutic targeting**  
 11:10    Yasuhiko Yamamoto (Kanazawa University, Japan)

**Symposium D9****10:00–11:30    Room D****International Workshop for Early-Career Researchers to Explore the Present and Future of Healthy Diet and Nutrition****Co-organized by The IUNS Subcommittee of the Science Council of Japan****Supported by Mishima Kaiun Memorial Foundation**

Chairs:

SYD9-1    **Group 1 Microbiota, Gut–Brain Axis and Food Science**  
 10:00

SYD9-2    **Group 2 Microbiota, Gut–Brain Axis and Health Promotion**  
 10:10

SYD9-3    **Group 3 AI and ML in Food Science and Nutrition**  
 10:20

SYD9-4    **Group 4 Clinical Trials and Epidemiological Nutrition**  
 10:30

SYD9-5    **Group 5 Health Promotion, Disease Prevention and Food Chemistry**  
 10:40

SYD9-6 **Group 6 Public Health, Clinical and Epidemiological Nutrition for Health Promotion**  
10:50

SYD9-7 **Round Table Discussion**  
11:00

| General Session 4 | 10:00–11:30 | Room E |
|-------------------|-------------|--------|
|-------------------|-------------|--------|

Chairs:

- |                 |                                                                                                                                                                                                                            |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OPE9-1<br>10:00 | <b>Protective effect of Psidium guajava leaves against aluminum chloride-induced Alzheimer's disease by modulating inflammation and oxidative stress</b><br>Josline Yehia Salib (National Research Centre, Egypt)          |
| OPE9-2<br>10:10 | <b>Utilisation of vegetable side-streams for sustainable production of yeast biomass: Characterisation and application as an alternative protein source for food and feed</b><br>Kalyani Meshram (University of Leeds, UK) |
| OPE9-3<br>10:20 | <b>Anti-obesity potential of buckwheat polysaccharides by modulation of gut microbiota and lipid metabolism</b><br>Gow-Chin Yen (National Chung Hsing University, Taiwan)                                                  |
| OPE9-4<br>10:30 | <b>Everything is good in the cardoon: Harnessing polyphenols and flower proteases for natural biopreservation and antioxidant peptide production</b><br>Coralie Dupas-Farrugia (Université Lyon, France)                   |
| OPE9-5<br>10:40 | <b>Effects of processing methods on <math>\beta</math>-Glucuronidase inhibitory activity in strawberry leaves</b><br>Kei Hashimoto (Utsunomiya University, Japan)                                                          |
| OPE9-6<br>10:50 | <b>Reduced moisture and salt levels enhance soluble polyphenols during miso-like fermentation of flint corn</b><br>Takayuki Tsukui (Sapporo University of Health Sciences, Japan)                                          |
| OPE9-7<br>11:00 | <b>Fucoidan modulates microbial tryptophan metabolism and gut-brain axis responses in DSS-induced colitis</b><br>Hyemee Kim (Pusan National University, Korea)                                                             |
| OPE9-8<br>11:10 | <b>Production of high-GABA tempe and investigation on change in bioactive compounds in tempe</b><br>Chiaki Tsushi (Osaka University, Japan)                                                                                |

|                        |                    |                  |
|------------------------|--------------------|------------------|
| <b>Closing Lecture</b> | <b>11:40–12:05</b> | <b>Main Hall</b> |
|------------------------|--------------------|------------------|

Chairs: Naomi Osakabe (President of ICPH2026, Shibaura Institute of Technology, Japan)

Kaeko Murota (President of ICoFF2026, Osaka Metropolitan University, Japan)

CL1      **The evolution and future of functional foods: integrating precision, sensory science, and food augmentation for human longevity**

11:40

Hitoshi Ashida (Mukogawa Women's University, Japan)

|                         |                    |                  |
|-------------------------|--------------------|------------------|
| <b>Closing Ceremony</b> | <b>12:05-12:55</b> | <b>Main Hall</b> |
|-------------------------|--------------------|------------------|

Chairs: Naomi Osakabe (President of ICPH2026, Shibaura Institute of Technology, Japan)

Kaeko Murota (President of ICoFF2026, Osaka Metropolitan University, Japan)

12:05      **Awards Ceremony**

12:25      **Introduction to the Next ICPH2028**

12:45      **Introduction to the Next ICoFF2030**